IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS

APPLICANT: KIM, Yang-Pioung

SERIAL NO.: 10/022,184 ART UNIT: 1773

FILED: December 14, 2001 EXAMINER: Jackson, M. R.

TITLE: LIGHT PROTECTING SHEET AND METHOD FOR MANUFACTURING THE SAME

# APPLICANT'S BRIEF IN SUPPORT OF APPEAL

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final Rejection of Claims 11 and 12.

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CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

I hereby certify that the attached correspondence comprising:

APPEAL BRIEF

is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P. O. Box 1450
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on March 2, 2007 .

Respectfully submitted,

March 2, 2007 /Andrew W. Chu/

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## REAL PARTY IN INTEREST

The person named in the caption, Mr. Yang Pioung KIM, is the inventor only. The Assignee, GMP Co., Ltd. is the real party in interest in the present appeal.

## RELATED APPEALS AND INTERFERENCES

There are no other related appeals or interferences known to Applicant which will directly affect or be directly affected by or have a bearing on the Board's decision in the present appeal.

## STATUS OF CLAIMS

Originally, Claims 1 - 5 were filed in this case as a convention filing of a non-provisional application, claiming priority from a Korean patent application of December 18, 2000. The Korean application was eventually issued as a Korean patent, and corresponding patents in the United Kingdom and Germany have been issued.

After the first Office Action of March 12, 2003, Applicant amended the claims into a condition for allowance as indicated by the Examiner. Claims 1-5 were canceled, and the subject matter in allowable form was re-presented as Claims 6-8.

After another Office Action on August 14, 2003, Applicant amended the claims into a condition for allowance as indicated by the Examiner. Claims 6-8 were canceled, and the subject matter in allowable form was re-presented as Claims 9-10.

After still another Office Action on January 26, 2004, Applicant again amended the claims into a condition for allowance as indicated by the Examiner. Claims 9-10 were canceled, and the subject matter in allowable form was re-presented as Claims 11-12. The response is the third time

the prior art reference was available.

A Final Action, on April 19, 2005, was finally received after a period of twelve (12) months. The Final Action included a new grounds of rejection and totally new prior art. In response, Applicant filed an amendment to Claims 11 and 12 with a Request for Continued Examination.

Another Office Action was received on July 27, 2005, repeating the rejection of the Final Action. Applicant amended Claims 11-12 again in order to place the claims into the condition for allowance indicated on March 12, 2003.

Another Final Action was received on February 7, 2006 instead. A new grounds for the final rejection was made. In response, Applicant attempted to file an appeal. Claims 11 and 12 were still the pending claims at issue. The Notice of Appeal was filed on May 10, 2006. The subsequent Appeal Brief was filed on August 4, 2006, concurrent with an amendment to place the claims into a condition for appeal. The Appeal and amendment of August 4, 2006 were not entered, and an Advisory Action was sent on November 1, 2006.

In response to the Advisory Action, Applicant file a Request for Continued Examination with another amendment to Claims 11 and 12, in order to return these claims to an earlier stage in the prosecution. Furthermore, related foreign references were entered into the file. Applicant requested an immediate Final Action.

A Final Action was received on December 27, 2006. There are no new grounds of rejection. The grounds of rejection as the same as the rejections from April 19, 2005 and July 27, 2005, and Claims 11 and 12 are now identical to Claims 11 and 12 from April 19, 2005 and July 27, 2005. Claims 11 and 12 are the pending claims at issue in the present appeal.

## STATUS OF AMENDMENTS

No amendments have been filed subsequent to the Final Rejection of December 27, 2006.

## SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a light protecting (or stop light) sheet and a method for manufacturing the same. In particular, the light protecting sheet is capable of displaying an advertising subject of a real picture as an image of high resolution, which is advantageous in terms of low production costs and excellent light-proof characteristics. The light protecting sheet comprises an aluminum-deposited film, a transparent film coated onto one side of the base film via a two-component adhesive, a white ink layer coated on the other side of the base film, and a hot melt layer covering the white ink layer.

## GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

In the Final Office Action of December 27, 2006, it was indicated that Claims 11-12 were rejected under 35 U.S.C. §103(a) as being obvious over the Hein patent alone or in combination with either one of the Whyzmuzis patent, the Murphy patent or the Miyamoto patent. This obviousness rejection was the substantive rejection in the Final Rejection of April 19, 2005 and the Office Action of July 27, 2005.

## ARGUMENT

### I. OVERVIEW

Claims 11 and 12 have been amended to more specifically claim the layers of the present invention. The new matter has been removed in response to the February 7, 2006 rejection, and Claims 11 and 12 have been returned to the format of the previous rejections. In particular, independent Claim 11 now recites limitations regarding coating the film with white ink, wherein the white ink of the present invention is of a particular type that is no longer made obvious by the prior art. Applicant has consistently amended the claims as suggested by the Examiner for allowance throughout the prosecution of this application. Allowable subject matter has been indicated throughout the first three Office Actions, until a Final Action sent over two (2) years after the first Office Action, based an obviousness rejection on new prior art. All other corresponding patent applications based upon the single Korean priority document have since issued, and Applicant has patiently pursued protection of the invention as claimed. As such, although technically proper and despite the fairness of timing of the rejections, Applicant still respectfully contends that the invention of Claims 11-12 as presented for appeal are not made obvious by the prior art or combinations.

## II. THE INVENTION IS NOT MADE OBVIOUS BY THE PRIOR ART

So as to more clearly distinguish the present invention from the Hein patent and the prior art combinations, independent Claims 11 and 12 have been amended to more accurately claim the layers of the present invention. In particular, independent Claim 11 now recites limitations regarding coating the film with white ink, wherein the white ink of the present invention is of a particular type that is no longer made obvious by the prior art. Additionally, independent Claim 12 now reflects the limitation of the white ink layer. As such, Applicant's attorney respectfully contends that independent Claims 11 and 12 now distinguish the present invention from the prior art Hein patent

and combinations of the prior art.

### A. THE INVENTION IS NOT MADE OBVIOUS BY THE HEIN PATENT ALONE

Applicant respectfully contends that the Hein patent does not make the present invention as now claimed obvious. The Hein patent fails to disclose any adhesive layer whatsoever, and there is no suggestion of any need for an adhesive layer in this prior art patent. As such, the Hein patent clearly does not disclose the application of two different layers with two different adhesive properties. Furthermore, the Hein patent does not differentiate between the layers on the hot melt layer side and the transparent PET film side. The step of applying adhesive "directly onto" one side of the aluminum-deposited layer and the limitation of the adhesive and aluminum-deposited layer "without any layer therebetween" are not made obvious by a prior art reference that completely lacks an adhesive layer. The Hein patent does not suggest an adhesive, multiple adhesives nor the relationship between the adhesive layers as now claimed.

### B. THE PRIOR ART COMBINATION DOES NOT MAKE THE PRESENT INVENTION OBVIOUS

In the relevant Office Actions of April 19, 2005, July 27, 2005, and December 27, 2006, the Examiner has also rejected Claims 11 and 12 under 35 U.S.C. § 103(a) as being obvious over the Hein patent in combination with either one of the Whyzmuzis patent, the Murphy patent or the Miyamoto patent. The Examiner has argued that the Hein patent teaches all elements of the claims except for the use of an adhesive layer. In the combination, the remaining prior art patents teach the white ink layers over the entire surface. This white ink layer has been interpreted by the Examiner as a pigment and adhesive component white ink because an opaque color ink is used. In any case,

either of the Whyzmuzis patent, Murphy patent or Miyamoto patent are used to disclose the two-component inks of pigment and adhesives to make the present invention obvious.

## 1. ONE SKILLED IN THE ART WOULD NOT COMBINE THE PRIOR ART PATENTS

In determining the propriety of the Patent Office's position as to obviousness in the first instance, it is first necessary to ascertain whether or not the referenced teachings would appear to be sufficient to one of ordinary skill in the relevant art knowing the reference before him to make the proposed substitution, combination, or other modification. In re Lintner, 458 F.2d 1013, 1016, 173 U.S.P.Q. 560 (C.C.P.A. 1972). A conclusion of obviousness may not be based on an impermissible hindsight reconstruction of the art. Application of Van Wanderhim, 378 F.2d 981 (C.C.P.A. 1967). It is insufficient to show merely that each separate element of a claimed invention can be found in one or various prior art references. Canadian Ingersoll-Rand Co. v. Peterson Products, Inc., 223 F.Supp. 803, 139 U.S.P.Q. 61 (N.D. Cal. 1963). There should be some teaching, or at least suggestion, in the prior art that the individual elements can, or should, be combined as claimed. In re Regel, 526 F.2d 1399, 1403, 188 U.S.P.Q. 136 (C.C.P.A. 1975).

As an invention for a cigarette package wrapper, the Hein patent teaches an over-wrapper material to be heat-sealed around a paper or cardboard carton. The Hein patent fails to disclose any adhesive layer whatsoever, and there is no suggestion of any need for an adhesive layer in this application. The heat-sealed material is important to preserve the tobacco contents packaged therein, and the adhesive is not necessary nor reliable enough to seal the carton. There is no suggestion that the addition of further layers of the type claim in the present invention would address the issue of creating a high barrier for protecting perishable contents.

It is acknowledged that the Hein patent also discloses the use of ink and printing on the over-wrapper material. However, there is no suggestion that the ink of Hein patent requires any specialization or modification in order to function. The Hein patent coats the over-wrapper and any ink with the heat-seal layer. It is the heat-seal layer which dispenses with any need to improve the ink layer and any need to incorporate an adhesive property.

In contrast to the Hein patent, the Whyzmuzis patent, Murphy patent and Miyamoto patent all relate to ink. The Whyzmuzis patent and Murphy patent are specifically drawn to ink for printing on laminates or films. The Miyamoto patent appears to be more specifically focused on the application of resins as additives to chemical compositions. These prior art patents are specialized for specific inks without a direct or necessary link to the cigarette carton wrapper of the Hein patent. There is no suggestion that such specialized inks are required for the application of a PET film with a heat-seal layer. As such, the combination of the Hein patent with either the Whyzmuzis patent, Murphy patent or Miyamoto patent should be re-considered. There is no suggestion to combine the ink referenced in the Hein patent with the specialized inks of the other three prior art patents.

## 2. ALL ELEMENTS OF THE INVENTION AS NOW CLAIMED ARE NOT MADE OBVIOUS BY THE COMBINATION OF PRIOR ART

Applicant respectfully contends that the key issue on appeal is whether the Hein patent or any combination of prior art with the Hein patent discloses the white ink layer and adhesive layer of the present invention. Applicant has repeatedly argued that the disclosure of an ink layer in the Hein patent or any combination of prior art with the Hein patent fails to disclose the separate and distinct layers of the adhesive and the white ink layer. It is extremely difficult to legitimately equate the ink layer of the prior art in order to make obvious a separate adhesive layer.

Applicant acknowledges that an ink layer has a pigment and an adhesive property in order to stick to the surface to which it is applied; however, it is clear to those skilled in the art and in the present prior art that an "ink layer" is not analogous to an "adhesive layer". All prior art references cited by the Examiner differentiate between these two separate elements, and these terms are never used interchangeably to suggest one another. The Hein patent does not consider the ink layer to be an adhesive layer, as shown by the reliance upon the heat-seal layer for the sealing function. The Hein patent does not even consider an adhesive layer for sealing, even though an ink layer is mentioned. The Whyzmuzis patent references "flexible packaging printing inks" and "adhesive layer" as two distinct products. Of the seven stated objectives of the invention, three objectives relate to ink, three more objectives relate to resin components, and the remaining objective relates to an adhesive. The Murphy patent is solely devoted to laminating ink, and there is only a single reference to "adhesive" in the specification. "Adhesive" is used in reference to a separate layer, used in addition to the ink layer. The Miyamoto patent makes the same distinction between an ink layer and an adhesive layer. This patent discloses resins as a component of either ink or adhesive, making a clear and definite distinction between these types of compositions.

In the prior art, one skilled in the art routinely distinguishes an ink layer and an adhesive layer in the field of laminates. Every piece of prior art recognizes the need to recite "ink" and/or "adhesive" because one term does not imply the other. Disclosing an ink layer does not automatically teach an adhesive layer to one skilled in the art, even though both layers have adhesive properties. If teaching an ink layer makes an adhesive layer so obvious, then there would be no need to repeatedly and explicitly recite both types of compositions throughout the prior art references cited by the Examiner. Applicant respectfully contends that disclosing an ink layer and an adhesive layer

is not a redundant exercise to one skilled in the art. Furthermore, it is acknowledged that there are commonalities between an ink layer and an adhesive layer. From the Miyamoto patent, the "resin" element is the more general terminology of a common chemical between an ink layer and an adhesive layer. The resin element in a composition may have adhesive properties, but the composition may be either an ink layer or an adhesive layer. These are two different compositions in the prior art, and the obviousness rejection of the adhesive layer, based upon disclosure of an ink layer, should not be upheld.

As such, the mention of an ink layer in the Hein patent or prior art combination with the Hein patent does not make an adhesive layer as claimed obvious. Furthermore, the mention of the ink layer on one side of the metal-deposited layer does not make the specifically claimed adhesive layer with placement limitations obvious. The distinction between an ink layer and an adhesive layer is a legitimate and practical distinction in function and composition. An ink layer is for display and communication purposes. One side of the ink layer may be exposed to dry with a glossy or matte finish according to the type of ink. In contrast, an adhesive layer is for structural and attachment purposes. The adhesive layer connects other layers or structures together and is not necessary exposed for display. The function as a building material is different than ink, so the chemical composition is correspondingly different.

Furthermore, neither the Hein patent nor the prior art combinations can disclose that "white" can be a color of a colored pigment. Applicant respectfully contends that certain layers of the present invention as now claimed are very clearly NOT shown nor suggested. Layers 12 and 14 of the Hein patent are analogous to the aluminum-deposited layer 102 of the present invention. However, on the other side of the metal-deposited layer, the other inventive elements of the transparent layer 100 and

the white adhesive layer 101 are not present in any of the prior art. These layers are important innovations that address particular problems discussed in the application as a display sign and that are not made obvious by the prior art.

It is important to note that the present application is a convention filing of a Korean priority application. Corresponding patent applications in other countries have similarly been filed with the priority claim. Applicant respectfully recognizes that the U.S. Patent and Trademark Office and the Examiner must apply the laws of the United States and acknowledges that the Examiner and the U.S. Patent and Trademark Office cannot be compelled by any other patent office of any other nation. Just for information and not for any binding authority, the corresponding conventional applications in various countries have already been determined and validated as patentable subject matter, such that multiple patents in these two other countries have issued. Copies of the cover sheets of these allowed patents are attached hereto. The corresponding British patent and German patent were entered into the file of the present application by the amendment on December 6, 2006. As such, these references are properly now presented for consideration.

Applicant respectfully notes that the Examiner recognized patentable subject matter from the first viewing of the application. Allowable subject matter was indicated three separate instances in Office Actions on March 12, 2003, August 14, 2003, and January 26, 2004. It is not so hard to believe that there is patentable subject matter in the application. Applicant has presented the corresponding issued patents in other countries for consideration of other possible amendments to accurately claim the appropriate subject matter for issuance.

On the basis of the reasons stated herein, Applicant respectfully contends that the present invention is patentably distinguishable from the Hein patent and any prior art combination.

## III. SUMMARY

Based upon the foregoing analysis, it is Applicants' contention that Claims 11-12 of the present invention are patentably distinguishable from the prior art and the prior art combinations.

The foregoing Brief is intended to assist the Board of Appeals in examining the application and, in the course of explanation, may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not considered to be exhaustive of the facets of the invention which render it patentable, being only examples of certain advantageous features and differences which Applicants' attorney chooses to mention at this time. The required fee for transmittal of the appeal brief is enclosed herewith.

Reconsideration of the application, as amended, and allowance hereof are respectfully requested.

Respectfully submitted,

March 2, 2007 /Andrew W. Chu/

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## CLAIMS APPENDIX

11. A method of manufacturing a light protecting sheet comprising:

applying a two-component adhesive of white color directly onto one side of an aluminum-deposited polyethylene terephthalate film;

overlaying a transparent polyethylene terephthalate film on the adhesive;

spreading white ink over an opposite side of the aluminum-deposited polyethylene terephthalate film; and

coating a hot melt layer directly onto the white ink spread over said opposite side.

12. A light protecting sheet comprising:

an aluminum-deposited polyethylene terephthalate film;

a transparent polyethylene terephthalate film coated onto one side of the aluminum-deposited polyethylene terephthalate film via a two-component adhesive without any layer therebetween, wherein said two-component adhesive is mixed with a white pigment to fix said transparent polyethylene terephthalate film onto the aluminum-deposited polyethylene terephthalate film;

a white ink layer coated on an opposite side of the aluminum-deposited polyethylene terephthalate film; and

a hot melt layer directly covering the white ink layer without any layer therebetween.

## EVIDENCE APPENDIX

1. U. K. Patent No. 2 370 005

2. German Patent No. 101 56 874

## RELATED PROCEEDINGS APPENDIX

None.

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DEUTSCHES PATENT- UND MARKENAMT

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**Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen**

Prüfungsantrag gem. § 44 PatG ist gestellt

(54) Lichtschutzschicht und Verfahren zur Herstellung derselben

(57) Offenbart ist eine Lichtschutzschicht, die fähig ist, ein Werbeobjekt eines realen Bildes als ein Bild hoher Auflösung anzuzeigen, die vorteilhaft ist aufgrund geringer Positionskosten, exzellenter Leistungsfähigkeit und Lichtundurchlässigkeitscharakteristik, und ein Verfahren zur Herstellung derselben. Die Lichschutzschicht weist einen Aluminium-abgelagerten Film auf, einen transparenten Film auf einer Seite des Aluminium-abgelagerten Films, der über einen Zweikomponenten Klebstoff aufgebracht ist, eine weiße Farbschicht, die auf der anderen Seite des Aluminium-abgelagerten Films aufgebracht ist, und eine Heißschmelzschicht, die die weiße Farbschicht bedeckt. Zusätzlich kann eine derartige Lichtschutzschicht hergestellt werden durch Anwenden eines Zweikomponentenklebstoffes weißer Farbe auf einer Seite eines Aluminium-abgelagerten Films, durch Überziehen des Klebstoffes mit einem transparenten Polyethylenterephthalatfilm, durch Bestreichen der anderen Seite des Aluminium-abgelagerten Films mit weißer Farbe, und durch Aufbringen einer Heißschmelzschicht auf die weiße Farbschicht.

DE 101 56 874 A 1

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FIG 1

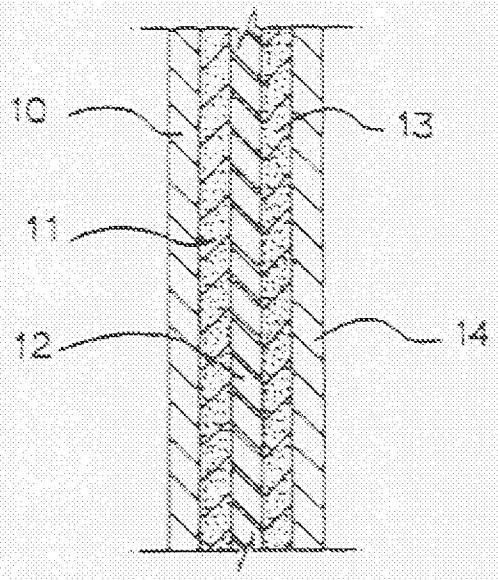
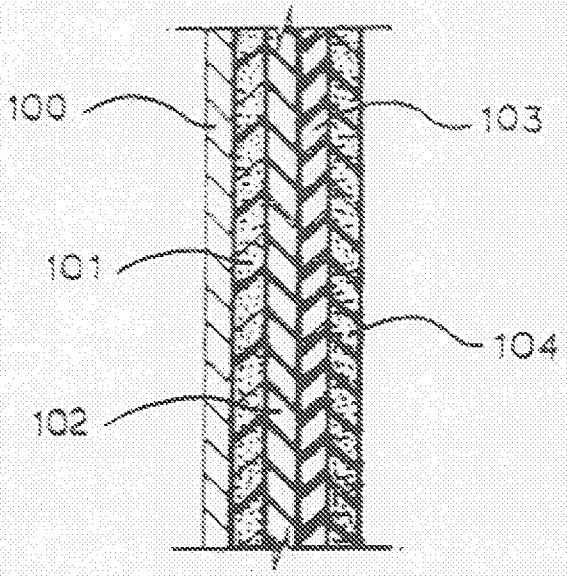



FIG 2



# LIGHT PROTECTING SHEET AND METHOD FOR MANUFACTURING THE SAME

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

The present invention relates to a light protecting (or stop light) sheet and a method for manufacturing the same, and, in particular, to a light protecting sheet, capable of displaying an advertising subject of a real picture as an image of high resolution, which is advantageous in terms of low production cost and excellent light-proof characteristic, and a method for manufacturing the same.

### 2. Description of the Prior Art

A conventional light protecting sheet is illustrated in Fig. 1. In this figure, a filler-containing white polyethylene terephthalate film 10 (hereinafter, referred to as white PET film ) is laminated on one side of an aluminum-deposited film 12 by an adhesive layer 11 provided therebetween, and a white PET film 14 is formed on the other side of the aluminum-deposited film 12 by

an adhesive layer 13 provided therebetween. In such a condition, the filler-containing white PET film 10 has good light-proof characteristic but suffers from the disadvantage of the final product being expensive, due to high preparation cost. Additionally, the white film exposed to atmosphere is lower in hardness than that of a base film only made of PET and thus can be easily scratched.

## SUMMARY OF THE INVENTION

With the problems encountered in the prior arts in mind, the present invention has an object of providing a light protecting sheet having low production cost and excellent productivity, capable of displaying an advertising subject of a real picture as an image of high resolution.

It is another object of the present invention to provide a method for manufacturing the light protecting sheet.

In accordance with an aspect of the present invention, there is provided a light protecting sheet comprising an aluminum-deposited film; a transparent film coated onto one side

of the base film via a two-component adhesive; a white ink layer coated on the other side of the base film; and a hot melt layer covering the white ink layer.

In accordance with another aspect of the present invention, there is provided a method for manufacturing the light protecting sheet, comprising the following steps of: applying a two-component adhesive of white color on one side of an aluminum-deposited polyethylene terephthalate film, overlaying a transparent polyethylene terephthalate film on the adhesive, spreading white ink on the other side of the aluminum-deposited polyethylene terephthalate film, and coating a hot melt layer on the white ink layer.

## BRIEF DESCRIPTION OF THE DRAWINGS

The above and other objects, features and other advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:

FIG. 1 is a cross sectional view of a conventional light protecting sheet.

FIG. 2 is a cross sectional view of a light protecting sheet according to the present invention.

## DETAILED DESCRIPTION OF THE INVENTION

With reference to Fig. 2, there is shown a sectional view of a light protecting sheet according to the present invention. In the light protecting sheet, on the basis of an aluminum-deposited film 102, an adhesive layer 101 of white color comprising a mixture of an adhesive and a pigment is applied on one side of the base film, and a white ink-applied color paint layer 103 is formed on the other side of the base film. Then, a transparent film 100 is overlaid on the adhesive layer 101, and a hot melt layer 104 is formed on the color paint layer 103.

The transparent film 100 is made of polyethylene terephthalate, and the adhesive layer 101 shows white color by mixing the adhesive with the pigment. Such adhesive layer 101 is substituted for a conventional white PET film 10 containing

fillers, and is thus advantageous in light of low production cost and improvement of productivity by improving forming workability of the sheet. On the hot melt layer 104, an advertising subject of a real picture can be directly applied.

The light protecting sheet is prepared by applying the white adhesive comprising the mixture of a two-component adhesive and a white pigment, such as titanium dioxide, aluminum hydroxide and calcium carbonate, on one side of the aluminum-deposited film 102, overlaying the transparent polyethylene terephthalate film on the adhesive, spreading the white ink on the other side of the aluminum-deposited film 102, and coating the hot melt layer on the white ink layer.

As described above, the aluminum-deposited film of the present invention having its one side applied with a two-component adhesive of white color can be substituted for expensive white PET film, and also the transparent film can be coated on its outer surface, whereby deformation and scratching attributed to lighting heat can be prevented, and an advertising subject of a real

picture can be directly applied on the hot melt layer.

The present invention has been described in an illustrative manner, and it is to be understood that the terminology used is intended to be in the nature of description rather than of limitation. Many modifications and variations of the present invention are possible in light of the above teachings. Therefore, it is to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

CLAIMS:

1. A method for manufacturing a light protecting sheet, comprising the following steps of:

applying a two-component adhesive of white color on one side of an aluminum-deposited film;

overlaying a transparent polyethylene terephthalate film on the adhesive;

spreading white ink over the other side of the aluminum-deposited film; and

coating a hot melt layer on the white ink layer.

2. A light protecting sheet, comprising:

an aluminum-deposited film;

a transparent film coated onto one side of the aluminum-deposited film via a two-component adhesive;

a white ink layer coated on the other side of the aluminum-deposited film; and

a hot melt layer covering the white ink layer.

3. The sheet as set forth in claim 2, wherein said two-component adhesive is mixed with a white pigment to function to fix the transparent film onto the aluminum-deposited film and to make the sheet appear white.

4. The sheet as set forth in claim 2, wherein said transparent film is made of polyethylene terephthalate.

7. A sheet, substantially as hereinbefore defined with reference to the accompanying drawings.